

REMARKS

Claims 1-16, 18, 20-22, and 24 were examined. Applicant thanks the Examiner for the indicated allowability of claims 20-22 and 24. No new matter has been presented.

CLAIM 1 IS ALLOWABLE OVER FURENDAL

Claim 1-16 were rejected under 35 USC 102(b) as being anticipated by US Patent No. 4,293,596 to Furendal et al. (hereinafter "Furendal"). Applicant respectfully traverses the rejection.

Claim 1 recites exposing the organic film to a vapor of a solvent for a period of time sufficient to render at least an outermost portion of the organic film insoluble in the solvent without heat treatment of the film. The resulting film has an outer layer insoluble in the same solvent that provided the vapor. All examples provided by Furendal fail to show that the resulting film is insoluble in the same solvent that provided the vapor and formed without heat treatment.

Applicant has reviewed the text in Furendal cited by the Office (specifically, col. 8, lines 11-65). Lines 13-14 state, "Such cross-linking is often desirable in order to obtain solvent resistance..." Lines 35-36 state, "In accordance with the foregoing, cross-linking gives improved solvent resistance." There is no other text in that cited section that relates to resistance to solvents or discusses with any specificity as to what kind of resistance is provided. Although the resistance may be improved, such improvement is undefined (e.g. improvement could mean that resistance is only better against one additional type of solvent, not necessarily all solvents).

Applicant submits that these teachings are not sufficient to support an anticipation of a claimed "range" of solvents as set forth in MPEP 2131.03. Specifically, if the claims are directed to a narrow range, >and< the reference teaches a broad range, ** depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims. **>Sec, e.g., *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006) wherein the court held that a reference temperature range of 100-500 degrees C did not describe the claimed range of 330-450 degrees C with sufficient specificity to be anticipatory. Applicant submits that the teachings of Furendal cited by the Office are far less specific than those in Atofina. Specifically, Furendal does not specify solvents to which the crosslinked film is resistant.

Consequently, Furendal cannot be said to teach with specificity that the crosslinked solvent is resistant to the solvent used for the solvent treatment. Based on such minimal disclosure in Furendal, Applicant fails to see support for the Office's position that the Furendal film is resistant to all solvents.

MPEP § 2131.03 notes that the question of "sufficient specificity" is similar to that of "clearly envisaging" a species from a generic teaching. See MPEP § 2131.02. Applicant respectfully points out that MPEP § 2131.02 mentions the examples of *In re Meyer*, 599 F.2d 1026, 202 USPQ 175 (CCPA 1979) in which a reference disclosing "alkaline chlorine or bromine solution" embraces a large number of species and cannot be said to anticipate claims to "alkali metal hypochlorite.". Similarly, even if, *arguendo*, Furendal "discloses" all possible solvents, such a teaching cannot be said to envisage the specific combination of solvents set forth in claim 1. Similarly, in *Akzo N.V. v. International Trade Comm'n*, 808 F.2d 1471, 1 USPQ2d 1241 (Fed. Cir. 1986) claims to a process for making aramid fibers using a 98% solution of sulfuric acid were not anticipated by a reference which disclosed using sulfuric acid solution but which did not disclose using a 98% concentrated sulfuric acid solution. Applicant submits that the general thrust of these cases is that a general prior art teaching that may encompass a specific claimed combination does not invariably anticipate the claimed combination.

Applicant further notes that MPEP 2131.03 states that "evidence of unexpected results within the narrow range< may also render the claims unobvious." In the present case, it is stated in the present application that, "it is counterintuitive to expect that exposing an organic material to a vapor of a solvent would render that organic material insoluble in that solvent..." (page 4, lines 7-8). Based on the minimal disclosure in Furendal and statement by those of skill in the art that resistance to the same solvent is counterintuitive, Applicant submits that the Office has not met its burden of showing that all elements of the claim invention are shown by the cited reference. Specifically, the disclosure in Furendal cited by the Office is vague and does not specify if the solvent resistance applies to all solvents, some solvents, or only the solvent used to create the resistant film. Per 37 CFR 1.104(c)(1), the burden is on the Office to show the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

Although Furendal states that the final film formation may be achieved with the aid of solvent or a combination of solvent and heat (as cited by the Office), there is nothing in Furendal stating that those films formed by solvent alone (without heat treatment) is insoluble to that same solvent. As stated, it is counterintuitive to expect that exposing an organic material to a vapor of a solvent would render that organic material insoluble in that solvent. Applicant fails to see where Furendal overcomes this statement and shows examples where this is true. The closest examples provided by Furendal use heat treatment, which is excluded in the present claim 1.

Applicant also traverses the Office's position that Furendal uses heat only to help dry the solvent and that crosslinking occurs at lower temperatures which may not require heating (page 4 of the Office Action, lines 11-13). In actuality, Furendal teaches the opposite, stating that the cross-linking takes place during heating (see below), and it is the cross-linking that provides the solvent resistance (see col. 8 lines 13-14, 35-36). Specifically, Example 16 states that, "The coating did not swell at all, which shows that cross-linking took place between the oxirane groups during the heat treatment after the solvent treatment." Example 29 states that, "The coating swelled insignificantly, which shows that cross-linking took place between the oxirane and the carboxylic acid groups during the heat treatment after the solvent treatment." No examples are provided showing that any of the other films, without heat treatment, could withstand the same solvent used for solvent vapor annealing. If the Office believes otherwise, Applicant respectfully requests that the Office provide a more specific reference to the text supporting that position. Furthermore, Applicant submits that the Office's assertion that heat is used to dry the solvent *after* the solvent treatment is directly contradicted in the very section cited in support of that assertion. Specifically, column 15, lines 19-22 state "[t]he drying should appropriately be carried out directly in connection with the treatment with the solvent. Previous heating can than [sic] be utilized, and it also facilitates the recovery of solvent."

Accordingly, Furendal does not show or suggest a film insoluble in the same solvent that provided the vapor and formed without heat treatment. Based on the aforementioned, Claim 1 and its dependent claims (including claim 18) are believed to be in condition for allowance.

CONCLUSION:

For the reasons set forth above, the Applicants submit that all claims are allowable over the cited art and define an invention suitable for patent protection. The Applicants therefore respectfully request that the Examiner enter the amendment, reconsider the application, and issue a Notice of Allowance in the next Office Action.

Respectfully submitted,

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